








# Three Phase AC Coupled Inverter







## 3-12 kW Plus Series



Afore AC coupled inverter (3-12kW) is suitable for three-phase systems. It can be fitted alongside with string inverter, enabling you to upgrade to solar battery storage system without changing your current installation.

						
<b>SODIUM METAL CHLORIDE BATTERY</b> Support Sodium metal chloride battery	<b>MIN. 80V</b> Battery Voltage Minimum 80V	<b>MAX. 50A</b> Max. Charge/ Discharge Current 50A	<b>100% UNBALANCE</b> Support Unbalance Load	<b>&lt;10 ms</b> UPS FUNCTION Switch Time < 10ms	<b>SMART</b> Smart EMS/BMS	<b>SUPPORT</b> Island support

Support for Time-of-use Optimization 	 Build in Anti-feed-in Function
Configurable Operation Modes 	 100% unbalanced output, each phase; 200% unbalanced output, each phase (≤ 10kW)
AFCI (Optional) & Rapid Shutdown Ready 	 Smart Monitoring & Remote Firmware Upgrade

Technical Data	AF3K-THP-0	AF4K-THP-0	AF5K-THP-0	AF6K-THP-0	AF8K-THP-0	AF10K-THP-0	AF12K-THP-0
<b>Battery Port</b>							
Battery Nominal Voltage (V)	100	100	100	150	200	250	300
Battery Voltage Range (V)	80-600			120-650			
Max. Charge/Discharge Current (A)	50			50			
Max. Charge/Discharge Power (kW)	3 / 3.3	4 / 4.4	5 / 5.5	6 / 6.6	8 / 8.8	10 / 11	12 / 13.2
Charging Curve	3 Stages						
Compatible Battery Type	Li-ion / Lead-acid / Sodium metal chloride battery						
<b>AC Grid</b>							
Nominal AC Output Power (kW)	3	4	5	6	8	10	12
Max. AC Input/Output Power (kVA)	4.5 / 3	6 / 4	7.5 / 5	9 / 6	12 / 8	15 / 10	18 / 12
Max. AC Output Current (A)	5.3	7	8.5	10.5	13.5	17	21.5
Nominal AC Voltage (V)	230/400						
Nominal AC Frequency (Hz)	50/60						
Power Factor	1 (-0.8-0.8)						
Current THD (%)	<3%						
<b>AC Load Output (Back-up)</b>							
Nominal Output Power (VA)	3000	4000	5000	6000	8000	10000	12000
Nominal Output Voltage (V)	230/400						
Nominal Output Frequency (Hz)	50/60						
Nominal Output Current (A)	4.4	5.8	7.3	8.7	11.6	14.5	17.4
Peak Output Power	3300VA, 60s	4400VA, 60s	5500VA, 60s	6600VA, 60s	8800VA, 60s	11000VA, 60s	13200VA, 60s
THDV (with linear load)	<3%						
Switching Time (ms)	<10						
<b>Efficiency</b>							
Max. Efficiency	98.00%			98.20%		98.30%	
<b>Protection</b>							
Reverse Polarity Protection	Yes						
Over Current / Voltage Protection	Yes						
Anti-islanding Protection	Yes						
AC Short-circuit Protection	Yes						
Leakage Current Detection	Yes						
Ground Fault Monitoring	Yes						
Grid Monitoring	Yes						
Enclosure Protect Level	IP65						
Protective class	Class I						
Overvoltage category	OVC III (AC Main)						
<b>General Data</b>							
Dimensions (W x H x D, mm)	558 x 535 x 260 / 370 x 497 x 192 mm						
Weight (kg)	29 / 20.8kg						
Topology	Transformerless						
Cooling Concept	Intelligent Fan						
Relative Humidity	0-100%						
Operating Temperature Range (°C)	-25 to 60 °C						
Operating Altitude (m)	<4000						
Noise Emission (dB)	<40						
Standby Consumption (W)	<5						
Display & Communication Interfaces	LCD, LED, RS485, CAN, Wi-Fi, GPRS, 4G						
Certification & Approvals	NRS097, G98/G99, EN50549-1, C10/C11, AS4777.2, VDE-AR-N4105, VDE0126, IEC62109-1, IEC62109-2						
EMC	EN61000-6-2, EN61000-6-3						